

Learners our Common Wealth: Towards Lifelong Learning for All



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What a pleasure to be here in Grenada among our Commonwealth friends—my first visit—and I'm very grateful to Sunny Leong and colleagues at the CEC for the kind invitation. I would also like to thank our hosts St George's University for all their meticulous arrangements. My topic today is 'Learners our Common Wealth: Towards Lifelong Learning for All' and I have prepared this presentation with my colleague Dr Sanjaya Mishra.

Let me take this opportunity to introduce my organisation the Commonwealth of Learning. COL is an intergovernmental organisation established by Commonwealth Heads of Government over thirty years ago, with headquarters in Metro Vancouver, Canada.

Our mission is to help Commonwealth Member States and institutions to use technologies for expanding access to education and training.

COL believes that learning is the key to sustainable development. Learning must lead to opportunities for economic growth, social inclusion and environmental conservation.

This aligns closely with the Sustainable Development Goal 4 which aspires to ensure inclusive and equitable quality education and lifelong learning opportunities for all by 2030.

In this presentation, I will first look at learners in the Commonwealth. I will then share the diversity of some of COL's learners. This will then lead to a discussion of the role technology can play in reaching learners and what are some of the trends we need to be aware of. In conclusion we will examine how people learn and what institutions need to do to promote lifelong learning for all.

First, the question, who are our learners and what is the situation of education in the Commonwealth?

As we know, it's a young Commonwealth with 60% of the people under the age of 30. There is then a great need for education and for training our valuable human resource.

If we look at the different regions, we find that Commonwealth Africa is the youngest with a median age of 19, followed by the Pacific where the median age is 25. Asia is also relatively young at 28 while the median age in the Commonwealth countries in the Caribbean, is 33.

In the Commonwealth, 17 million primary children need to go to school and 16 million of our youth are out of secondary school. While more boys than girls are enrolled in primary schools, boys are underrepresented and under-performing at the secondary level. The Commonwealth is home to 400 million illiterate adults, more than half the global number. Can they aspire to livelihoods and a life of dignity?

If current trends are an indication, we will not be able to achieve the targets in SDG 4 of bringing education to all by 2030. The UNESCO Global Education Report 2016 shows that unless we change our present approaches, we will not be able to achieve primary education for all before 2042 or secondary education until much later.

Everyone in the Commonwealth is not connected—in fact only 22% have access to the internet while 87% have access to mobiles. How can we harness the potential of mobile devices for learning? Unemployment rates are high in many Commonwealth countries—how can we provide skills with speed and at scale?

There seems to be a mismatch between what we teach and what employers want. Half the youth surveyed for a McKinsey report did not think their post-secondary qualifications would lead to a job. Similarly 58% of employers do not have the confidence that new graduates are prepared for work.

But if we are to reach learners around the Commonwealth, we need to move beyond the ‘business as usual’ approach and the ‘brick and mortar’ mindset which assumes that learning is only possible within the walls of a classroom. We will need alternative and innovative approaches to address the magnitude of the challenge.

As you know COL promotes learning for sustainable development. We have a diversity of learners who learn through flexible learning opportunities provided by technology. Let me share some examples.

The first cohort of out of school youth in a remote fishing village in Trinidad & Tobago graduated through a COL-supported open school. Open schools provide flexible learning opportunities for secondary schooling through the use of technologies. The entire curriculum was structured around fisheries which addressed the livelihoods needs of the young people.

These young students go to a COL-supported open school in Belize. Research shows that every \$ invested has resulted in \$ 8 worth of benefits to students.

In Bangladesh we partner with the boat schools to bring education and training to remote unreached communities in flood-prone areas.

Having left school at 12, when she was married, Rehana Sultan of Bangladesh wanted to go back to school at the age of 22 when her three children asked her to help with their homework. This was only possible by enrolling in an open school.

These young teachers in Antigua and Barbuda graduated with a COL-supported certificate in Teacher ICT Integration.

Ministers of Education directed COL to establish a Virtual University for Small States of the Commonwealth (VUSSC) and all 31 small states of the Commonwealth are members of this consortium.

Leafaitulagi Vaelua is a graduate of the VUSSC diploma in sustainable agriculture offered by the National University of Samoa and is already in full-time employment in her country.

COL's Commonwealth Executive MBA/MPA programme is offered by universities in 11 countries. Raymond Loh completed this programme in his early fifties when he was jobless and started a relocation business which now has a presence in 40 countries.

In Kenya, COL supported women to start agri-enterprises and a recent study concludes that learning leads to empowerment and for every 1% increase in empowerment, there is a 2.3% increase in profits.

In India, women entrepreneurs at the bottom of the pyramid established a farm producers company with COL support. These illiterate women learnt corporate finance through their basic mobile phones.

These young gardeners learnt horticulture through a blended MOOC offered by COL and IIT-K which allowed them to access audio content through their mobile devices and seek the help of experts through contact centres.

Innocent Kusima has a hearing impairment and learnt advanced ICT skills through COL support. He is currently employed in an international NGO as a programmer. As you have seen, learning takes place not just in a formal environment but in non-formal situations as well.

In fact, formal education only accounts for a small fraction of the time we spend in learning. In 16 waking hours during grades 1 to 12, we spend 18.5 % time in formal learning environments—and this keeps decreasing as we transition to undergraduate and graduate study. The rest of our waking lives are spent in informal learning environments.

Who are COL's learners? They are lifelong learners who are engaged in learning

from cradle to grave. These are not just students in formal education but learners who learn in non-formal or informal contexts as well. Their motivation for learning could be employment-related or for personal, social or cultural reasons.

We have also seen that technology has a major role to play in making learning accessible and equitable for all. Let us now look at emerging technology trends and their implications for learning.

Today we speak of the fourth industrial revolution—what has been the impact of these four revolutions on education? In the first industrial revolution when the steam engine was invented, higher education made a transition from being elite to one which anyone could aspire to. The second industrial revolution was marked by the assembly line and mass production, when it became possible to produce self-instructional booklets and offer correspondence courses. The rise of the computer and internet in the third revolution led to the rise of distance learning and open universities and today in the fourth revolution marked by AI and Robotics, we have OER, MOOCs, micro-credentials.

At the end of 2018, we noted that 51% of the world's population had access to the internet, while mobile penetration had touched 107%. How can mobile devices be harnessed for learning? Another important trend that has strong implications for learning, is the rapid rise of Messaging. WhatsApp and WeChat have billions of users. This is largely because of the increase in the number of smartphones in developing countries. Because of this, messaging-based learning management platforms will have a faster uptake in the developing world, thereby reducing costs of education and training.

Technology will also have a great impact on the future of jobs and as an Oxford University study found, 47% of today's jobs could be automated in the next 20 years.

We will need to skill and re-skill our human resources throughout life. Estimates for European countries show that a 1 per cent increase in training days leads to a 3 per cent increase in productivity, and that the share of overall productivity growth attributable to training is around 16 per cent (CEDEFOP, 2007).

Learners will require credits for their training. Credentials are important and credits can be transferred for an academic qualification or lead to employment. Are we ready to provide micro-credentials which can be stacked and lead to certificates, diplomas and degrees?

MOOC platforms allow us to offer free online courses to thousands of students around the world. MOOCs are opening up education as never before. Universities have so far largely operated within national or regional jurisdictions. With the MOOC platform, the world becomes a connected classroom.

Can MOOCs make our learners more employable? A study of a Coursera MOOC platform published in Harvard Business Review indicates that MOOCs provide many tangible and intangible benefits. For example, 26% found a new job, 9% started their own business, and 62% improved their skills in current job roles.

AI is beginning to have a presence in education. An IBM report cites one example of the Intelligent Tutoring System. These systems use AI techniques to simulate one-to-one human tutoring. They are able to provide timely feedback, all without the presence of a human teacher. AI, in particular, Machine Learning, helps to analyse and summarise the discussions in online courses so that a human tutor can guide the students towards fruitful collaboration. AI-enabled systems can group students with similar interests at a similar cognitive level.

A popular example of AI in education is a Virtual Teaching Assistant at the Georgia Institute of Technology. This chatbot named Jill Watson offered personalized assistance to learners in an online course in computer science by using text. Professor Goyal, who offered the course, analysed data from four offerings of the course. He concluded that in specific domains and topics, it would not be easy for humans to tell the difference between the responses of a chatbot or a human expert.

AI-powered systems can be deployed as robots with human-like speech. According to Anthony Seldon, the role of the teacher will change to become one of an overseer, who monitors the progress of learners, leads non-academic activities and provides pastoral support.

Another example of AI in education is the Intelligent Textbook. Inquire is an iPad App that combines a popular biology textbook with an AI system that answers questions about the content. This was part of a research project at Stanford University.

Learning Analytics based systems are helping to create a more personalized learning experience by providing continuous and instant feedback resulting in improved outcomes. Because of this, predictive systems can be developed to identify potential dropouts and provide the necessary support to help learners overcome their difficulties and develop mastery learning.

In this scenario, learners will need to skill and re-skill themselves. Learners will need to move back and forth from academia to employment. This will give rise to networks of multi-versities. Learners will collect micro-qualifications and badges to remain up-to-date beyond degrees. The focus will be on acquiring knowledge and skills in new modes of delivery and pedagogy among the teaching community.

The technological developments are unpredictable and the world we live today is complex-- within these uncertainties how can we equip learners to deal with the future? Three essential literacies have been proposed by Robert Aoun. First, the human literacy, prepares students to perform jobs that only human beings can do. Human literacy will help them to make ethical choices, equip them for social engagement

through effective communication. All learners must have adequate exposure to humanities and liberal arts. Data literacy is essential in a world driven by data. Learners must be able to find meaning in the flood of information around us. Technological literacy is essential if we are to understand machines and their uses. Learners must be able to deploy software and hardware in order to maximize their powers to achieve and create.

Finally let us look ahead and look at the future of the learner in an age of digital transformation. Who is this new learner?

In the 1980s, the 'new learner' was the adult who looked for education and training for personal development, promotion, change in career. . The turn of the century gave rise to the digital natives who are technology-savvy learners, usually young school-leavers entering the higher education system.

The millennial learner is usually the younger learner born in the 1980's. How do they learn? They have different approaches to learn. They prefer taking courses that are more practical and skills oriented that would lead them to jobs and the ability to do or perform. Many of them prefer to learn by doing and game-based learning is particularly suitable for them. They do multiple-tasks at the same time -- texting while doing another task is common. And of course, they like instant gratification and team work. Rather than simply being consumers they are also producers of knowledge.

In addition to the millennials, we also have aging populations. How do we ensure that no one is left behind? By adopting a targeted approach and addressing the needs of specific constituencies—those in remote locations, women and girls/men and boys where they are most disadvantaged people with disabilities.

While we have increased access to technology, there is another form of inequality that is prevalent in our societies. A recent Pew Internet Survey in the USA revealed that only 17 percent of adults can use digital tools to pursue learning. 14 percent had low levels of digital skills and limited trust in online information. 31 percent had necessary access, but never made forays into digital learning, while 33 percent were reluctant to use technology for learning.

How can we prepare learners to use harness technologies for learning? As people continue learning throughout their life-span in the 21st century, we need to design systems and processes that cater to the needs of different learners. How people learn depends on their cultural context and prior experience. While people's ability to learn changes with age, the brain has the ability to adapt throughout life, as pointed out by a recent report by the US National Academies of sciences, engineering, medicine. experience Provision of instant feedback keeps learners motivated and more motivated and engaged learners lead to better learning outcomes.

As educators, what can we do? We need to prepare an ecosystem that promotes lifelong learning for all. Higher education systems need to embrace lifelong learning and strengthen their outreach function to open up education to wider constituencies especially the unreached. Simply reforming current education systems will not be enough. Countries will need to continually skill and reskill their workforce throughout their life

Changing 4 jobs by 32 is the new normal for the millennials. Thus, it would be imperative to prepare them to be employable. This will require a balance between theory and practice; a focus on hard as well as soft skills, a curriculum that addresses the needs of industry and society. The orientation will change to providing certification based on competence rather than the number of hours attended. To create an education system that is responsive to the market needs and future requirements, it is necessary to re-imagine our policies and practices.

Effective learning is an organic process. It is something that happens within the brain of the individual to develop a knowledge schema that continues to grow throughout life – using both deliberate and unconscious ways of learning mediated by available infrastructure and access to technology. Since learning is optimal, when it is contextual and situated in the social milieu of the learner, we need to ensure that the technologies we deploy are accessible, affordable and appropriate.

Thank you for your kind attention.